



## AL205R ALERT2 Repeater



## ALERT2 Repeater

Robust, reliable, and configured to support repeating ALERT2 messages

### Overview

The AL205R is an ALERT2 repeater/transceiver that is configured to support repeating ALERT2 messages. With two radio I/O, independent receiving and transmitting radios are supported. Three serial ports allow for input and output to several devices, including an ALERT receiver, data logger, PC, and serial server. Local and remote data collection and administration are possible through the micro USB console and Ethernet ports. The USB host port supports flash drives and peripherals to load settings and firmware, as well as to transfer log files from the SD flash drive. Either the GPS or NTP functionality can be used to provide time synchronization, and the LEDs offer status and activity indicators.

The AL205R is suitable for remote, unattended deployments. A co-located data logger can provide local meteorological measurements such as rain, wind, and barometric

pressure; provide status information such as battery voltage and intrusion detection; and serve as a communication medium and/or protocol converter for links such as satellite, cellular, and SCADA.

The AL205R supports configurable forward-error-correction (FEC), allowing for the use of 250 ms TDMA time slotting for faster TDMA cycle times and larger networks. The AL205R is firmware-upgradeable, giving you the ability to take advantage of features such as ALERT2 two-way and encryption.

**Note:** ALERT2 is a trademark of the National Hydrologic Warning Council.

### Benefits and Features

- ▶ TCP/IP streaming of received ALERT2 messages and error messages in binary or ASCII format
- ▶ Storage of received ALERT2 messages and error messages via a microSD card
- ▶ Ability to download logs and data in a secure manner via SFTP over a TCP/IP network
- ▶ ALERT2 network device status reporting (battery voltage, temperature, error flags, GPS clock status, and message statistics)
- ▶ Remote reconfiguration of device via secure TCP/IP connection



## Specifications

Operating Temperature Range	-40° to +80°C
Power Connector	2 pin, screw terminal
Power Supply	9 to 17 Vdc (reverse polarity protected)
Current Drain at 12 Vdc	<ul style="list-style-type: none"> <li>» ~20 mA (GPS on)</li> <li>» 96 mA (normal operation, no external connections)</li> <li>» ~1 mA (each serial port)</li> <li>» ~25 mA (Ethernet port)</li> <li>» 144 mA (all serial ports, USB console, and Ethernet connected, GPS on)</li> </ul>
RX Radio - Data Out Level	300 to 1200 mV (peak to peak)
TX Radio - Data In Level	100 to 1200 mV (peak to peak, configurable in 0.5 dB steps)
Clock Synchronization	GPS or NTP
Clock Drift	<ul style="list-style-type: none"> <li>» 3.5 ppm (-40 to +80°C)</li> <li>» 2 ppm (0 to 40°C)</li> </ul>
RS-232	» 1200 to 115,200 bps

	<ul style="list-style-type: none"> <li>» 3 ports</li> <li>» Custom 3-pin cable</li> </ul>
Ethernet	10/100 Mb (fixed or DHCP addresses)
Storage	microSD expandable storage to record all ALERT2 traffic in ASCII format (N, P, S, C message)
LEDs	10 status LEDs for Power, Bit Sync, Frame Sync, GPS On, Clock Sync, TX Radio Power, Transmit, Serial 1, Serial 2, Serial 3
Active GPS Antenna	SMA, female
RX Radio	4 pin, spring clip (power, gnd, data, channel select)
TX Radio	5 pin, spring clip (power, gnd, ptt, data, channel select)
Certifications	FCC Part 15 Class A certified
Dimensions	19.05 x 10.16 x 3.18 cm (7.5 x 4 x 1.25 in.)
Weight	600 g (1.3 lb)

For comprehensive details, visit: [www.campbellsci.com/al205r](http://www.campbellsci.com/al205r)



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